

Missouri Assessment Program Spring 2003

Science

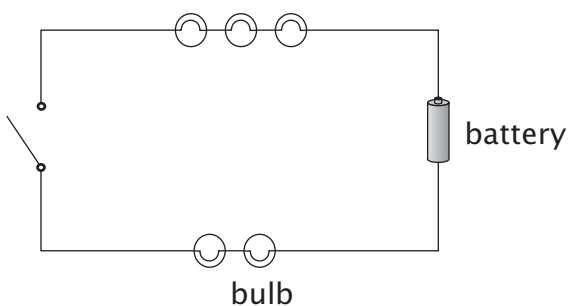
Released Items

Grade 7

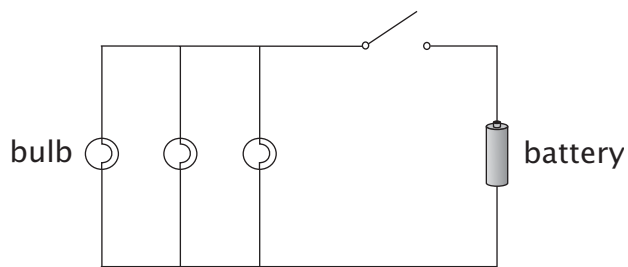


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5 Which drawing below shows light bulbs connected in a parallel circuit? _____



A



B

What is an advantage of using a parallel circuit to make a string of decorative (party) lights?

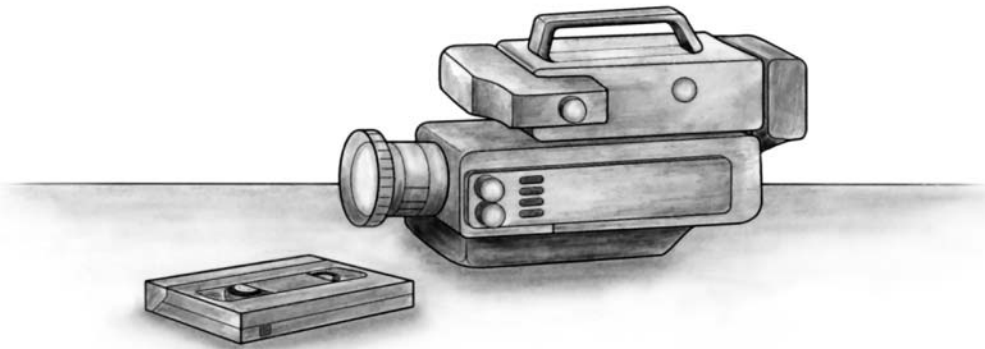
Go On ►

7

A seventh-grade science team was impressed with a magazine article on body language. The team had access to a video camera. Without telling their classmates, they videotaped their classmates at lunch through a one-way mirror.

- (a) May they use and publish the information in this video as part of a report? Explain your answer.

- (b) How can this team obtain and use videotapes of individuals behaving spontaneously at unguarded moments?



Go On ►

8

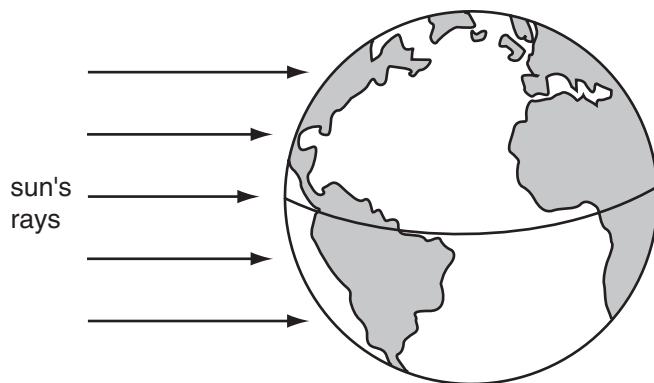
Some cells have structures called chloroplasts, which contain the green pigment chlorophyll.

- (a) Explain the role of chloroplasts in these cells.

- (b) Name two things from the environment that chloroplasts must have to perform this role.

1.

2.



Explain why sunlight creates a pattern of decreasing temperature as someone moves from the equator toward areas at higher latitudes.

Go On ►

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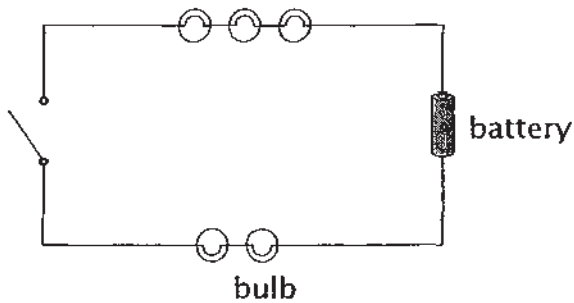
Science

Released Items Scoring Guide

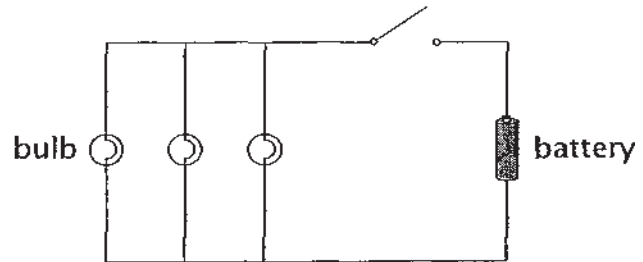
Grade 7

2 Points

1-5 Which drawing below shows light bulbs connected in a parallel circuit? B



A



B

What is an advantage of using a parallel circuit to make a string of decorative (party) lights?

If one goes out the rest of the lights will stay
lit.

Score Point 2
2 Key Elements

>B

>If one bulb goes out, the others will still work

Session:	1
Item:	7
Page:	7
Standard:	II.C.1 (Std 8)
Goals:	2.1, 4.4

Key Elements:

(a) _____
No

AND

one of the following:

- No one should do experiments without consent forms from individuals involved.
- Harm in the form of embarrassment or ridicule could happen to individuals involved.
- It is an invasion of privacy.

Note: No, may be implied.

(b) _____
Individuals should be asked after the taping and consent should be obtained.

OR

Before taping, individuals should be asked for their consent to be videotaped at unguarded and possibly embarrassing moments.

Note: It is possible to have both (a) and (b) answered correctly in (a) if the answer addresses the need for permission. For example: "No, because you have to ask the people."

Score Points:

2 points	two key elements
1 point	one key element
0 points	other

Session:	1
Item:	8
Page:	8
Standard:	VII.B.2 (Std 3)
Goals:	1.10

Key Elements:

(a)

one of the following:

- Chloroplasts perform photosynthesis.
- Chloroplasts produce sugars/food.
- Chloroplasts give off oxygen.

(b)

two of the following:

- They require sunlight.
- They require carbon dioxide (CO₂).
- They require water (H₂O).
- They require minerals.

Score Points:

2 points	one key element from (a) AND two key elements from (b)
1 point	either 1 key element from (a) or 2 key elements from (b) OR 1 key element from (a) and 1 key element from (b)
0 points	other

Session:	1
Item:	13
Page:	11
Standard:	VI.B.5 (Std 5)
Goals:	1.10

Key Elements:

Sunlight strikes Earth and its atmosphere more directly at or near the equator than at areas of higher latitude, which heats land/ocean/atmosphere more at or close to the equator than elsewhere.

OR

any other response that indicates the student's correct understanding of how sunlight effects patterns of decreasing temperature as one goes from the equator toward areas at higher latitude

Score Points:

1 point	one key element
0 points	other